

REPORTS

REPORT ON CONFERENCES ATTENDED WITH N.Z.H.S. SUPPORT,
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(i) *Interpraevent 1992, Bern, Switzerland*

This was the 4-yearly meeting of erosion control experts in Europe. Delegates also attended from Japan, U.S.A., Canada, and China, and about 500 people were present in all. The published proceedings comprise 6 volumes in German, French and English.

The technical sessions were disappointing in standard of presentation and significance, with nothing very new arising. However the opportunities for informal interaction were many, including a superb banquet. I can report obtaining very useful updates on central European research in debris flow management, river behaviour (the Swiss are beginning to deliberately re-widen the originally braided and subsequently drastically constricted Emme River for environmental and sediment management reasons) and environmental matters. The organisers of this conference are hoping to make it a world-wide event and I suggested N.Z.H.S. would be an appropriate contact in New Zealand for this purpose.

The best feature of the meeting was a seminar on debris flows, which concentrated mostly on the difficulties of developing forecasting and warning methods for such events.

(ii) *International Symposium on Erosion, Debris Flow and Environment, Chengdu, China*

This was one in the continuing series of 'Pacific Rim Steepland' conferences which began with the Christchurch, N.Z., meeting in 1981. About 40 Chinese and 40 foreign delegates attended. The papers on Erosion and Debris Flow were, in the main, not significantly exciting, mostly reporting still more local experience on sophisticated, but unverified, models; however the final section, on environmental issues, was much more interesting. It was a surprise to encounter people from countries as different as England and Nepal with whom I could establish close communication on appropriate technology and a variety of situations in connection with bio-engineering. This was, as a result, a very significant meeting for me, and has helped me to formulate future directions for research and teaching. The Conference Proceedings have been published by IAHS (Publ. No.209).

Overall these two meetings complemented each other very well and were both thoroughly worthwhile. I am most grateful to the New Zealand Hydrological Society for its support which made my attendance possible.

T.R. Davies

AUSTRALIA-NEW ZEALAND (ANZ) CLIMATE FORUM, M.J. Keyte,
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The seventh Australia-New Zealand Climate Forum was held at the Holiday Inn in Cairns, Australia, from July 13-15 1992, hosted by the Geography

Department of the James Cook University of North Queensland. Approximately 60 people attended the Forum, with 24 presenting papers.

The papers presented provided an interesting and informative overview of recent climatological and meteorological research in both Australia and New Zealand. Topics covered included establishing high quality climatological data series, tropical climatic processes, climate change and climate change programmes, hazards and mesoscale processes, and the relationships between tourism, agriculture, forestry and climate. In general there was a good representation of the various facets of climatology.

S.V. Szokolay (University of Queensland) provided an interesting perspective with his paper on building climate zones for Queensland. His viewpoint was that houses should be designed more to suit the local climate, which is desirable for both the thermal comfort of the occupants and the conservation of energy. At the time, this was of particular relevance to New Zealand, as it was in the middle of the 1992 electricity crisis. It was claimed that with quite simple design and construction measures, energy loss could be reduced significantly.

Also of interest was a paper given by J. Clewett on the Australian RAINMAN project. RAINMAN is a P.C. software package which offers interested users easy access to long-term climatic records, a method of analysing these records and some interpretation of seasonal climate forecasts at their own location. The package contains Southern Oscillation data, and historical rainfall data for 450 locations throughout Queensland, but is presently being extended to cover the whole of Australia. It is most relevant to producers-agriculturalists, schools, universities and the government, and is available to all for approximately \$250 Australian dollars, inclusive of updating costs. This project should enhance Australia's capacity for measuring climatic risk in rural industries.

Workshops also were held on selected themes, providing time for interesting and lively discussion. This allowed further discussion of points made in previous papers given in that session, while also incorporating a number of differing perspectives and ideologies. Generally a consensus was reached in the form of a number of objectives.

It is important to note that the Australian research scene seems to be very active at the moment, with opportunities pertaining to various aspects of climatology. Many innovative research programmes are being devised and undertaken, with enthusiasm, by universities and government departments. The level of cooperation between the differing government departments and the universities is also very admirable. Their beer is not as good as ours, however.

The New Zealand contingent at the Forum was small, with only five people attending, and four giving papers. J. Newman (University of Canterbury) discussed the value and results of a study based on the reconstruction of terrestrial paleoclimates during the Cenozoic. Chris de Freitas (University of Auckland) outlined the results of a pilot study which aimed at assessing the effects of the region's climate on water resources of low lying islands in the tropical Pacific. Earl Bardsley presented the preliminary results from an experiment recently set up in Waikato, which aims to use a confined aquifer as a lysimeter to measure evapotranspiration, and John Sansom (NIWAR) discussed breakpoint representation of rainfall. The New Zealanders' input into questioning and the workshop discussions also more than made up for the low numbers.

The ANZ Climate Forum was the first conference that I have attended, and

was a worthwhile and valuable experience. It brought me into contact with academics and scientists in the climatology field, while also serving to expanding my knowledge of various aspects of climatology. There is nothing like meeting new people and listening to (sometimes) interesting ideas in unknown surroundings to broaden your horizons!

I would like to thank the New Zealand Hydrological Society, the Northland Regional Council, Grant Auto Products and the following departments at Waikato University: the Earth Sciences Department, the Centre for Environmental Resource Studies (Geography Department), and the Department of Mathematics, for assisting me with funds that enabled me to attend the Forum.

12TH CONFERENCE ON PROBABILITY AND STATISTICS IN THE ATMOSPHERIC SCIENCES, 5TH INTERNATIONAL MEETING ON STATISTICAL CLIMATOLOGY, TORONTO, 22-26 JUNE 1992, C.P. Pearson, NIWAR Freshwater, P.O. Box 8602, Christchurch.

This conference was organised jointly by the American Meteorological Society (12th Conference on Probability and Statistics in the Atmospheric Sciences) and the Steering Committee for International Meetings on Statistical Climatology (5th International Meeting on Statistical Climatology). The fourth statistical climatology meeting was held at Rotorua in March, 1989. More than 200 people attended this year's conference, mainly from North America. The meeting was held in the Medical Sciences Building, University of Toronto (within walking distance of downtown Toronto). The conference ran for five days, Monday to Friday.

The principal reason for a New Zealand statistical hydrologist attending such a climatological event was the receipt of an invitation from the American Meteorological Society to present a paper in the "L-moments" session, held on Thursday afternoon. L-moments are linear counterparts of conventional statistical moments (such as the mean, standard deviation etc), but far superior for region identification and parameter estimation for regional studies of geophysical extrema. I have been using and testing L-moments methods developed by Jon Hosking and Jim Wallis of IBM New York on data on New Zealand flood, rainfall and low flows over the last three years (papers soon to appear in this journal).

The main joint theme of the two conferences was detection of the effects enhanced greenhouse gas. Three of seven common sessions were devoted to this theme. Despite varying sampling coverage in time and space, there was general acceptance that a global warming of 0.5°C has occurred over the last 100 years. Other joint sessions were: combining climate forecasts; optimal use of weather and climate information; quality-value relationships for weather and climate forecasts; cluster analysis. Twelve other sessions were concurrently run by the two conferences. Topics included: time series & circulations; distributions & association; probability forecasting; statistics & numerical models (invited); statistical methods & instrumentation; forecast algorithms & diagnostics; environment & stochastic processes; L-moments (invited); multivariate techniques, statistical methods of data quality control (invited) — all American Meteorological Society topics and: long memory processes; temperature climate change; other

climate changes; statistical inference; time series; environmental monitoring; climate structure; statistics & climate change; eigentechniques; climate model validation; extreme value analysis; threshold methods; forecasting; climate data; climate change detection; general methods — all statistical climatology topics.

All sessions were of reasonably equal interest, but there was greater relevance for a hydrologist in the L-moments and extreme value sessions. The extreme value papers covered applications to sea-level, temperature, rainfall, wind speed and streamflow, and addressed the effects on extreme values of climate change and of serial correlation of time series.

The aims of the L-moments session were to acquaint climatologists with the advantages of this new technique and to meet with other L-moment users. Hosking presented the theory, and Guttman, Pilon, Alila, Angel, Vogel (all rainfall), Thomas (low flows), and I (floods), presented applications, extensions to the theory, and comparisons with other methods of regional extreme frequency analysis.

Even though most participants were resident in North America, the meeting had a global atmosphere, with 50 or so scientists from elsewhere. There was a good appreciation of New Zealand's role as an important global link in atmospheric and geophysical data collection. It was quite general knowledge at the conference that New Zealand was experiencing a mild El Niño event at the time, and even that the country was in the grip of a hydroelectric power crisis.

Conference proceedings were published separately for the two conferences, with joint papers in both. The American Meteorological Society volume comprises 92 papers (422 pages); the statistical climatology volume has 184 papers (734 pages).

I am most grateful to the New Zealand Hydrological Society and the Hydrology Centre, DSIR Marine & Freshwater for funding my attendance at this conference.